

**CLAIMS:**

What is claimed is:

1. A method of assisting a user who is editing a markup document on a computer, comprising:

5 presenting to said user said markup document on a display of said computer for editing;  
and

providing grammatical assistance to said user based on a grammar inferred from current content of said markup document.

10 2. The method of claim 1 further comprising inferring said grammar from the current content of said document.

3. The method of claim 2 wherein said grammar is inferred automatically.

4. The method of claim 3 wherein said grammar is inferred after said markup document is loaded into a primary memory of said computer for editing.

15 5. The method of claim 4 wherein said grammar is dynamically updated based on real-time edits to said markup document.

6. The method of claim 5 wherein said grammar is only updated after a pre-defined time interval has elapsed since said markup document was last edited.

20 7. The method of claim 2 wherein said inferred grammar is associated with a grammar element appearing in said markup document for which an associated real grammar defined in a grammar file is not available.

8. The method of claim 7 further comprising, where possible, providing assistance to said user based on a real grammar defined in a grammar file.

9. The method of claim 8 wherein said markup document is an extensible markup language (XML) document.

10. The method of claim 9 wherein said real grammar file is an XML schema definition (XSD) file or a data type definition (DTD) file.

11. The method of claim 10 wherein when said XML document is associated with a plurality of grammars, each one of said plurality of grammars is associated with a namespace and, for a particular grammar element associated with a particular namespace, assistance related to said particular grammar element is provided to said user based on the grammar associated with said particular namespace.

12. The method of claim 7 wherein said inferring comprises:

constructing a document object model associated with said current content of said document, said document object model comprising a set of grammar elements each associated with one or more portions of said current content of said document;

for each grammar element of said set, determining whether said each grammar element is associated with an available real grammar and, if not, inferring one or more grammar rules associated with said each grammar element; and

incorporating said inferred one or more grammar rules into said inferred grammar.

13. A method of providing assistance to a user who is editing an extensible markup language (XML) document, comprising:

presenting to said user said XML document for editing;

monitoring a user input for an edit event;

after detecting an edit event, inferring a grammar from current content of said XML document;

providing assistance to said user based on said inferred grammar.

14. A computer readable medium storing thereon computer executable instruction code, said code when executed by a processor of a computer causes said computer to:

present a markup document on a display of said computer to a user for editing; and

5 provide grammatical assistance to said user based on a grammar inferred from current content of said markup document.

15. The computer readable medium of claim 14 wherein said grammar is inferred automatically.

10 16. The computer readable medium of claim 15 wherein, where possible, said computer is further caused to provide assistance to said user based on a real grammar defined in a grammar file.

17. The computer readable medium of claim 16 wherein said markup document is an extensible markup language (XML) document.

15 18. The computer readable medium of claim 17 wherein when said XML document is associated with a plurality of grammars, each one of said plurality of grammars is associated with a namespace and, for a particular grammar element associated with a particular namespace, assistance related to said particular grammar element is provided to said user based on the grammar associated with said particular namespace.

20 19. A computer which is adapted to carry out the method of claim 1.

20. A computer which is adapted to access the computer readable medium of claim 14 and to execute the computer executable code stored thereon.